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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/761,574	01/21/2004	Nien-Hua Pai	17389.47	3462
22913	7590	02/06/2008		
WORKMAN NYDEGGER 60 EAST SOUTH TEMPLE 1000 EAGLE GATE TOWER SALT LAKE CITY, UT 84111			EXAMINER DAHBOUR, HENRY	
			ART UNIT 2625	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/761,574	Applicant(s) PAI, NIEN-HUA	
	Examiner Henry Dahbour	Art Unit 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6-20 is/are rejected.
- 7) ☒ Claim(s) 4-5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.


Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


DAVID MOORE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

Attachment(s)

- | | |
|---|---|
| <p>1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)</p> <p>2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</p> <p>3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date <u>4/28/05</u>.</p> | <p>4) <input type="checkbox"/> Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.</p> <p>5) <input type="checkbox"/> Notice of Informal Patent Application</p> <p>6) <input type="checkbox"/> Other: _____.</p> |
|---|---|

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-3, 12-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Kawai.

Regarding claim 1, Kawai discloses an exposure control device for adjusting light amount received by a focusing device and a photoelectric conversion device of an image scanning apparatus comprising a control unit asserting a control signal according to a certain condition of the image scanning apparatus (see 34 in Figure 1), and a light-transmission adjusting device arranged in the light path to the focusing device and the

photoelectric conversion device and changing an effective light-transmission area thereof in response to the control signal to adjust light amount passing therethrough (see "positioning of the rotatable plate 21 through the motor 22" in lines 34-35 in column 7, also see 21 & 22 in Figures 1-2).

Regarding claims 2 & 12, wherein the light-transmission adjusting device comprises a driving unit controlled by the control unit to generate a driving force in response to the control signal, and a movable optical grid plate optionally driven by the driving force to change a position thereof so as to change the effective light-transmission area (see "positioning of the rotatable plate 21 through the motor 22" in lines 34-35 in column 7, also see 21 & 22 in Figures 1-2).

Regarding claims 3 & 13, wherein the driving unit comprises a motor and the optical grid plate is moved by rotation (see "positioning of the rotatable plate 21 through the motor 22" in lines 34-35 in column 7, also see 21 & 22 in Figures 1-2).

3. Claims 1, 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Reed et al.

Regarding claim 1, Reed discloses an exposure control device for adjusting light amount received by a focusing device and a photoelectric conversion device of an image scanning apparatus comprising a control unit asserting a control signal according to a certain condition of the image scanning apparatus (see 26 in Figure 1), and a light-transmission adjusting device arranged in the light path to the focusing device and the photoelectric conversion device and changing an effective light-transmission area thereof in response to the control signal to adjust light amount passing therethrough (see 24 in Figure 1).

Regarding claim 6, Reed discloses the light-transmission adjusting device comprises a liquid crystal screen electrically connected to the control unit, and changing the effective light-transmission area in response to the control signal by varying darkened pixels (see lines 21-25 in column 3, also see Figure 1).

4. Claims 1, 7-8, 12, 14-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Boyd et al.

Regarding claim 1, Boyd discloses an exposure control device for adjusting light amount received by a focusing device and a photoelectric conversion device of an image scanning apparatus comprising a control unit asserting a control signal according to a certain condition of the image scanning apparatus (see "processor based controller" in line 45 in column 2, also see Figure 1), and a light-transmission adjusting device arranged in the light path to the focusing device and the photoelectric conversion device and changing an effective light-transmission area thereof in response to the control signal to adjust light amount passing therethrough (see "aperture size of the iris 106 is controllable by the controller" in lines 46-47 in column 2, also see 106 in Figure 1).

Regarding claim 12, Boyd discloses an exposure control device for adjusting light amount received by a focusing device and a photoelectric conversion device of an image scanning apparatus comprising a control unit asserting a control signal according to a certain condition of the image scanning apparatus (see "processor based controller" in line 45 in column 2, also see Figure 1), a driving unit controlled by the control unit to generate a driving force in response to the control signal, and a movable optical grid plate optionally driven by the driving force to change a position thereof so as to change

an effective light-transmission area (see "aperture size of the iris 106 is controllable by the controller" in lines 46-47 in column 2, also see 106 in Figure 1).

Regarding claims 7-8, 14-15, the certain condition of the image scanning apparatus is a selected resolution of the image scanning apparatus, and the effective light-transmissible area under high resolution is smaller than that under low resolution (see "high resolution scans use a relatively small aperture size....low resolution scans use a relatively large aperture size" in lines 2-4 in the abstract, also see "user could...select an aperture" in line 25 in column 3).

5. Claims 1, 9-10, 12, 16-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Takeda et al.

Regarding claim 1, Takeda discloses an exposure control device for adjusting light amount received by a focusing device and a photoelectric conversion device of an image scanning apparatus comprising a control unit asserting a control signal according to a certain condition of the image scanning apparatus (see 224 & 207 & 207' in Figures 5A-5B), and a light-transmission adjusting device arranged in the light path to the focusing device and the photoelectric conversion device and changing an effective light-transmission area thereof in response to the control signal to adjust light amount passing therethrough (see 202 in Figures 5A-5B).

Regarding claim 12, Takeda discloses an exposure control device for adjusting light amount received by a focusing device and a photoelectric conversion device of an image scanning apparatus comprising a control unit asserting a control signal according to a certain condition of the image scanning apparatus (see 224 & 207 & 207' in Figures

5A-5B), a driving unit controlled by the control unit to generate a driving force in response to the control signal, and a movable optical grid plate optionally driven by the driving force to change a position thereof so as to change an effective light-transmission area (see 202, 207, 207' in Figures 5A-5B).

Regarding claims 9-10, 16-17, Takeda discloses the certain condition of the image scanning apparatus is a predetermined comparing result of a voltage value of an output signal from the photoelectric conversion device with a threshold value, and the effective light-transmissible area is enlarged when the voltage value of the output signal is smaller than the threshold value (see "the light quantity...is adjusted by the aperture stop 202... the output...signal from the CCD 203...compares this voltage value with the voltage of a reference voltage...thereby driving the aperture actuator 207" in lines 37, 38, 43, 44, 48 in column 12, also see Figures 5A-5B).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1 & 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boyd et al in view of Johnson et al.

Boyd et al, as described above, does not disclose ASIC.

Johnson et al discloses this feature (see "ASIC" in line 15 in column 12).

Boyd and Johnson are analogous art because they are from the same field of endeavor, that is the scanner art.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the ASIC of Johnson with the control unit of Boyd.

The suggestion/motivation for doing so would have been to provide improved control of exposure.

Therefore, it would have been obvious to combine Boyd with Johnson to obtain the invention specified in claim(s) 1 & 11.

8. Claims 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boyd et al in view of Reed et al.

Boyd et al, as described above, does not disclose a liquid crystal screen.

Reed et al discloses this feature (see 24 in Figure 1).

Boyd and Reed are analogous art because they are from the same field of endeavor, that is the scanner art.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the liquid crystal screen of Reed with the exposure control device of Boyd.

The suggestion/motivation for doing so would have been to provide improved control of the light transmission therethrough.

Therefore, it would have been obvious to combine Boyd with Reed to obtain the invention specified in claim(s) 18-19.

9. Claims 18, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeda et al in view of Reed et al.

Takeda et al, as described above, does not disclose a liquid crystal screen.

Reed et al discloses this feature (see 24 in Figure 1).

Takeda and Reed are analogous art because they are from the same field of endeavor, that is the scanner art.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the liquid crystal screen of Reed with the exposure control device of Takeda.

The suggestion/motivation for doing so would have been to provide improved control of the light transmission therethrough.

Therefore, it would have been obvious to combine Takeda with Reed to obtain the invention specified in claim(s) 18, 20.

Allowable Subject Matter

10. Claims 4-5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 4, the prior art, either singularly or in combination, does not teach or suggest a device, as claimed in claim 1, comprising:

“a driving unit controlled by the control unit to generate a driving force in response to a first state of the control signal, a first optical grid plate arranged in the light path to the focusing device and the photoelectric conversion device, and having a first light transmission area, and a second optical grid plate having a second light transmission area smaller than the first light transmission area, and optionally driven by the driving force to be aligned with the first optical grid plate so as to reduce the effective light transmission area...”

The features identified, in combination with other claim limitations, are neither suggested nor discussed by the prior art of record.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lai, Gindele et al, Jeran, Hsu et al, Yoshida and Ito et al are cited to show exposure control.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Henry Dahbour whose telephone number is 571-272-4295. The examiner can normally be reached on 9:00AM-5:30PM, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on 571-272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

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may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HD



DAVID MOORE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600